HARPER'S WEEKLY

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Edited by GEORGE HARVEY

CONTRIBUTORS

William Dean Howells
E. F. Benson
Sydney Brooks
Henry Loomis Nelson
Charles Johnston
Edward S. Martin
Franklin Matthews
George P. Morris
John Paul Bocock
A. Maurice Low
James MacArthur
Louis Bell
Edwin Lefevre
John M. Bacon
W. E. Horton
Richard Arthur
T. C. Martin

40
PAGES

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FOUR
DOLLARS
A YEAR

John Hay and the New Alaskan Treaty

The Army and Navy Reception at the White House. The Trial Trip of the New "Maine"

By Balloon Over the Irish Sea

Mardi Gras in New Orleans

Wicked Willie and the Wall

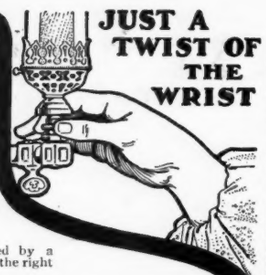
Power From Sunlight

AMERICANS OF TO-MORROW
THIS WEEK
PETER COOPER HEWITT

Sixteen Pages of Comment on Politics, Literature, and Life

HARPER & BROTHERS NEW YORK

The BALL CHECK



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AMERICANS OF TO-MORROW

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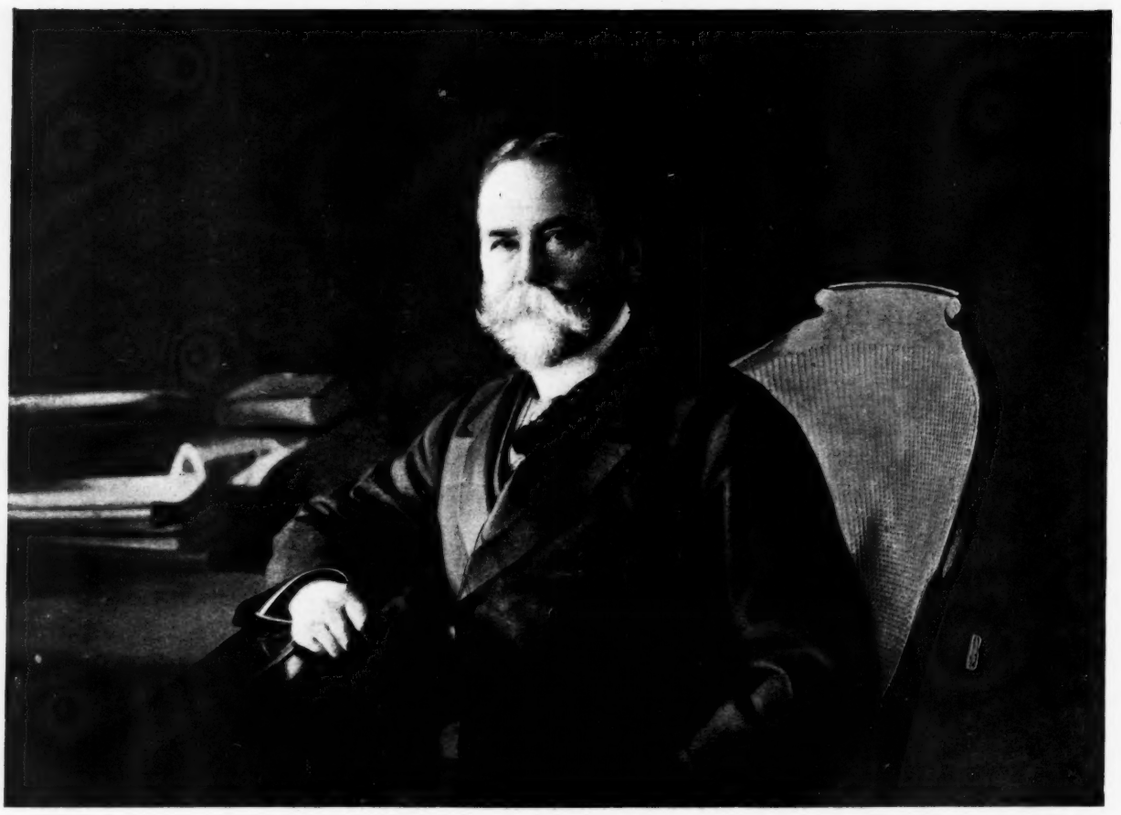


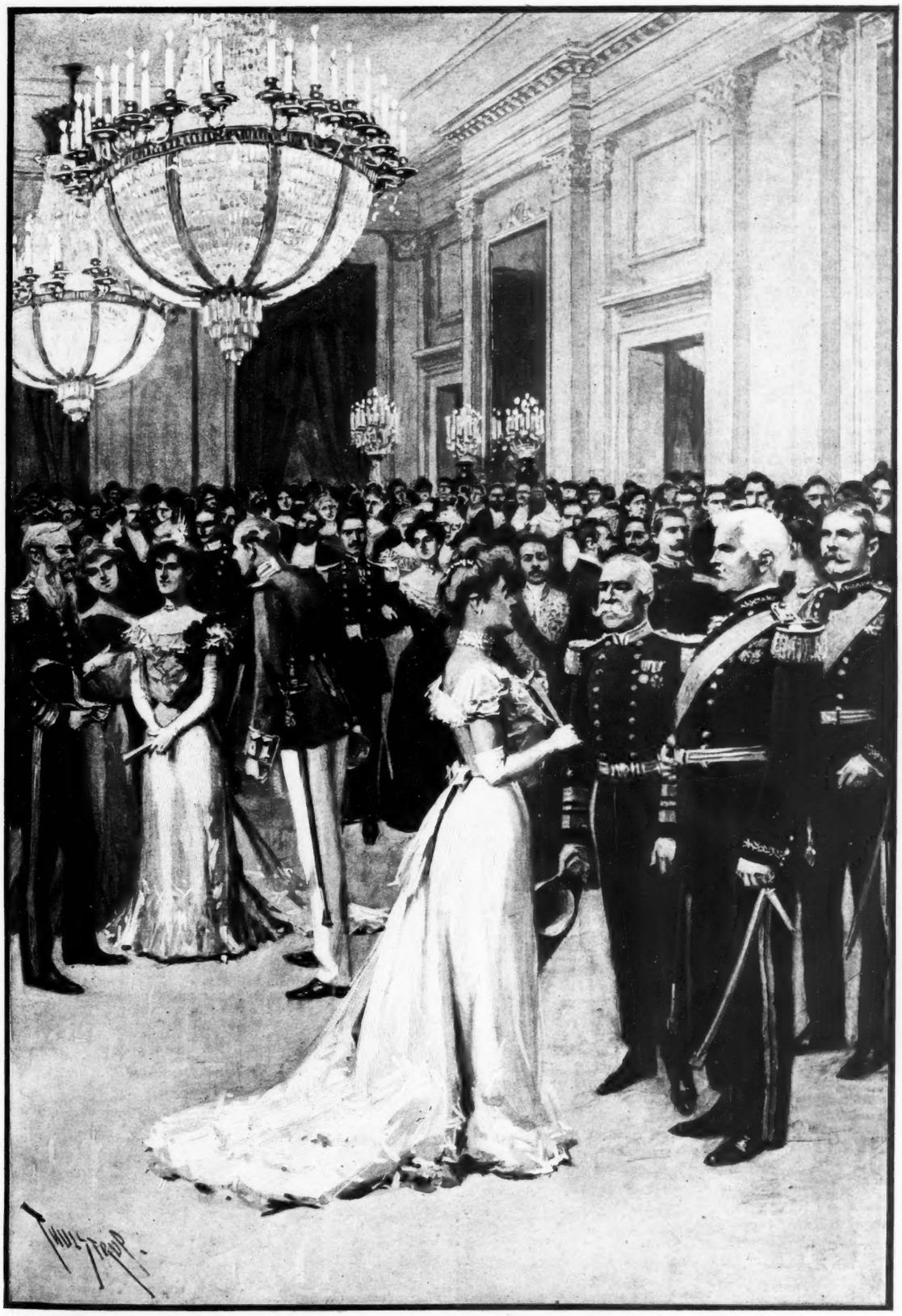
JOHN HAY AND THE NEW TREATY

THE signing by Secretary-of-State Hay and Sir Michael Herbert of the treaty submitting to arbitration the long-drawn-out Alaska boundary dispute, following with such startling, almost sensational, quickness the treaty signed by Mr. Hay with the Colombian government granting the right of way for the construction of the Panama Canal, calls renewed attention to the remarkable achievements of the present Secretary of State. It is neither exaggeration nor eulogy to say that since the foundation of the government there has been no occupant of the State Department who has faced so many great problems or who has been so uniformly successful in dealing with them.

During the five years that Mr. Hay has been Secretary of State there has been scarcely a day that the State Department has not had to grapple with a question of first magnitude, questions vital to the interests of the United States, and affecting in only a lesser degree all the rest of the world. Had they occurred a few years previously they would have aroused the country from one end to the other; now they are regarded as almost a matter of course, and although they attract attention, they are discussed quietly. Nothing, perhaps, better illustrates the commanding position of the United States in *Weltpolitik*, and that recognition by the American people, than the unconcern, indifference almost, with which they know of the influence exercised by this government in the political concerns of the world. A summary of the subjects that have demanded the attention of the State Department since Mr. John Hay entered it shows how wide are the interests of the United States and how great the demands made upon the American minister for foreign affairs.

Mr. Hay assumed charge of the department after the close of the Spanish war, and when the terms of peace were to be arranged. Then followed all the numerous and intricate questions arising out of the new order of things, and the effacement of Spain as a power in the Western Hemisphere. While some of the loose threads were being securely bound together there came the outbreak in China, and the lamentable spectacle was presented of all the world losing its head, with the sole exception of the American government. Space will not admit of going into details, but those who are familiar with the diplomacy at the time when the legations were threatened by the Boxers, and the even more critical time after the allies had entered Peking, know that Mr. Hay, among all the First Ministers of the world, stood alone in demanding justice for the Chinese, and that punishment be tempered by mercy. He refused to yield to the savage demands made by Germany for unlimited punishment, and succeeded in bringing such pressure to bear upon the allies that a milder course was adopted. When the plenipotentiaries of the powers met in conference to agree on the terms of the indemnity, the American representatives, acting under Mr. Hay's instructions, accepted an indemnity sufficient only to cover the actual loss of American citizens, and protested strenuously against imposing such a fine on China as would have virtually reduced her to beggary. The abrogation of the Clayton-Bulwer treaty; the dissolution of the Samoa condominium; the negotiations to conclude a treaty with Colombia for the construction of the Panama Canal, negotiations so exasperating that they might well have made a less pertinacious man abandon them as hopeless; the efforts to bring about a settlement of the Alaska boundary dispute, that for more than thirty years has been a cause of friction between the United States and Great Britain, and more than once threatened consequences of the gravest nature; the successful negotiation of the reciprocity treaty with Newfoundland, which one of Mr. Hay's predecessors attempted, but found impossible; the conclusion of several other reciprocity treaties; and now, at the time of writing, the delicate situation developed by the attempt on the part of Germany and Great Britain to collect an indemnity from Venezuela—are the things that have chiefly occupied Mr. Hay's attention since he became a member of the cabinet.

The secret of Mr. Hay's success as a diplomatist, the reason why he has been able to achieve more during his administration of the State Department than any of his predecessors, may be summed up in one word—character. Most men who have played a great part in the world's affairs have been bilateral; the majority of them have not considered it unethical, or opposed to their code of honor, to be absolutely truthful, honest, and just in their private relations, and more or less unmindful of these obligations in the interests of their country. John Hay, Secretary of State, and John Hay, private citizen, are one and the same man. Mr. Hay as the foreign minister of the United States would no more think of obtaining an undue or unfair advantage than he would do an unworthy thing in his private capacity. He could not if he would. His trend of thought, his past life, his nature, no less than his principles, would revolt against such a suggestion. In negotiating with foreign powers he has, of course, and properly, endeavored to obtain for the United States those things that he regarded as essential for its welfare or safety or in pursuance of its well-established policy, but he has never sought to drive a hard bargain or to avail himself of the necessities of his opponent, or to be influenced by petty considerations.



THE ARMY AND NAVY RECEPTION AT THE WHITE HOUSE

The President's annual reception to his officers is this year unusually interesting because of the newly renovated White House, and because all the officers appeared for the first time in their new uniforms. The scene represented by Mr. de Thulstrup in the East Room was most brilliant and effective

OUR COLONY PROBLEM

FOR three years preceding the assignment of General J. Franklin Bell, United States Army, to command the Third Separate Brigade in the Philippines, the insurgents had been masters of the situation. The territory included in this brigade was a large one—embracing part of Rizal (Manila) Province, all of Cavite, Laguna, and Batangas provinces, part of Tayabas Province, the islands of Mindoro, Romblon, Marinduque, and other smaller islands. A great deal of this territory is covered by high mountains and mountain ranges, dense undergrowth, swamps, etc., which render field operations exceedingly difficult, and give the insurgents the greatest possible advantage. They were armed mostly with Mauser and Remington rifles, each command being re-enforced by a company of bolomen.

They had eluded pursuit by disbanding when too hard pressed, to assemble again at some other point; they always planned to attack a much smaller force than their own, and they would not stand in a fair fight. They terrorized all native towns, requiring contributions of money and supplies. Agents were appointed in each town to receive these. A breach of trust on the part of one of these natives caused his instant death. This was the situation in the Third Brigade when General Bell assumed command, December 1, 1901. An order was issued closing the ports in Batangas and Laguna provinces, and directing all natives to assemble in the regular settled towns by January 1, 1902; every settled town was garrisoned by soldiers. A radius of one to three miles outside of the town proper was given in which to settle, but for convenience and better sanitary measures the camps were generally located on the grounds best adapted for the purpose within the area.

General J. Franklin Bell

Many were the picturesque sights during the month of December as the peaceful families from the hills moved into the towns. Lines of bull-carts, native ponies and cattle, each carrying their share, some carrying natives with their bright, many-colored garments, and some household effects, wended their way from hill to hamlet. The moving of a native house and native family, such as are found in the hills, is no great engineering feat. The pieces of bamboo forming the sides of the house, and the braces for the top, are untied, and placed on a bull-cart. This can be done in two or three hours by the men, while the women and children pack the family effects, which, as a rule, can be done in much less time, as they can be carried on the backs of one or two native ponies. The chickens are carried in bamboo crates, while the hogs are tied by the feet and placed on bull-carts to repose until the destination is reached.

Reconcentration camps were established in Batangas and Laguna provinces only. The former has a population of about 313,000, and the latter about 177,000. In Batangas Province twenty reconcentration camps were formed, and twenty-five in Laguna Province. The former has an area of about 1153 square miles, twenty-two pueblos, and five hundred and twenty barrios, and the latter six hundred and eighty-four square miles, twenty-eight pueblos, and four hundred and ninety-five barrios.

These camps sprang up with surprising rapidity. An officer stationed in the town was designated to supervise each camp, and it was his duty to see that the camps were erected in an orderly and systematic manner. A medical officer was assigned to look after the sick and sanitary measures, and the commanding officer himself saw to it that all the reconcentrados had proper food and supplies. A hospital specially for natives, under army supervision, was established for each camp. Many of these towns surpassed in neatness and appearance the permanent towns to which they were annexed. Such of the men as could work were given employment on the roads, or in the supply department as stevedores and cargadores.

Ever since the surrender of the last insurgents rice and supplies have been imported by the shipload by the military authorities, and sent by wagon and pack-trains to the towns and barrios for use of the natives, so that they may have sufficient food until their first crops are harvested. At the present time nearly all the presidentes have reported that no more rice will be needed, which means that the natives have recovered a basis of self-support. This great work has been accomplished by General Bell, and almost entirely by him. He planned and controlled each separate expedition.

He has been in these islands about four years and a half—longer than any other officer or soldier. Although he has for several months had an order from the War Department assigning him to the command of the General Staff College at Fort Leavenworth, Kansas, with instructions to proceed there at his convenience, he remains here in order that he may personally see that everything possible is done for the future welfare of his past enemies. Through an agent of the Agricultural Department he is showing them the use of American farm implements, and experimental farms are being established under his supervision.

A Filipino Market

A Popular Religious Festival

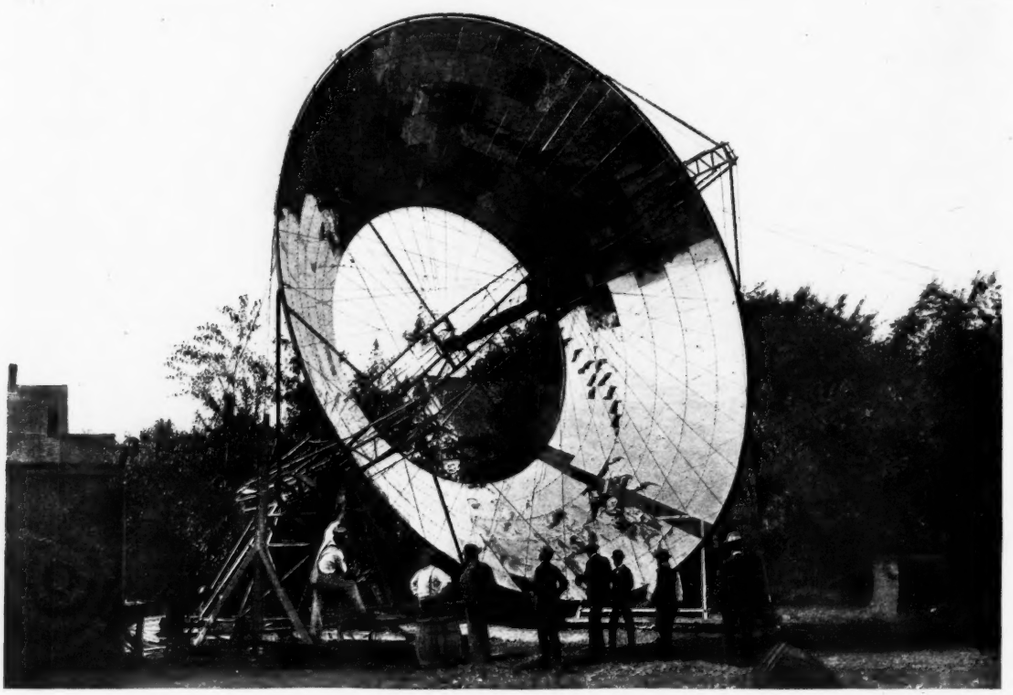
THE DAY BEFORE LENT IN NEW ORLEANS

The Mardi Gras Festival, held every year in New Orleans, is of exceptional interest not only from its picturesque side, but because in any part of our hurried, busy life such a festival—a return to the customs of old mediaeval days—is possible. In the above drawing Mr. McCarter has fully caught the curious, old-world spirit which characterizes these modern festivals in the South and West

POWER FROM SUNLIGHT

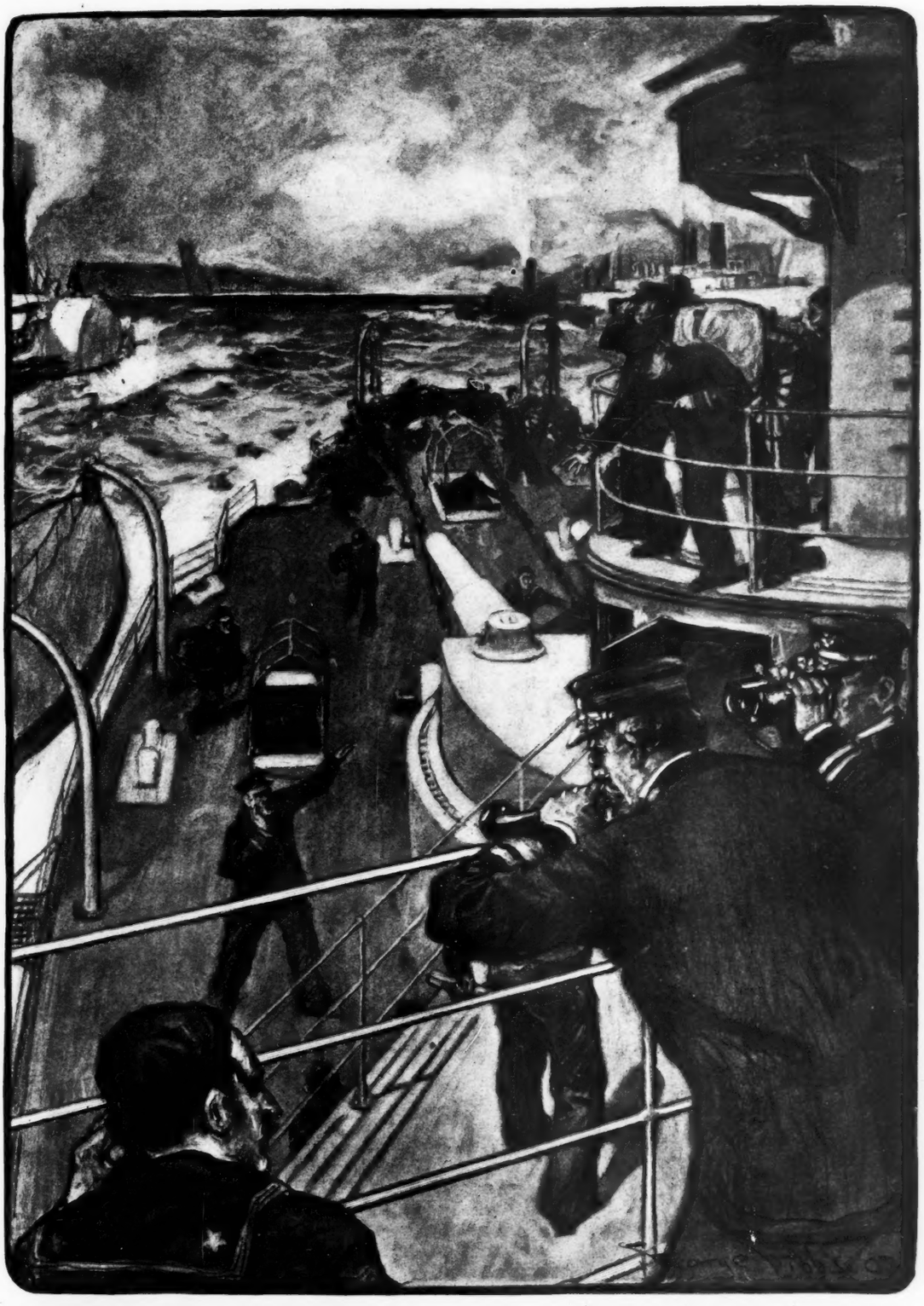
IT has been a favorite pastime for the dreary gentlemen who juggle with statistics solemnly to calculate the date on which we shall all freeze to death from exhaustion of the coal-supply. The events of the present winter have thrown a new and lurid light on their vaticinations, for many a home has been fireless and many a factory has closed its doors through a mere temporary diminution of the coal output of a single State. It is a bad business at the best, and quite enough to set people on a serious quest for means of relief. The sun since the dawn of history has been worshipped and apostrophized as the source of life and light, but there are few even now who realize how near and potent its aid really is. The energy with which it daily floods the earth is so great as almost to defy the grasp of the intellect. For a conservative and moderate estimate it is equivalent to about 10,000 horse-power per acre of the terrestrial surface exposed to it. If this store of energy could be gathered over even a few square miles it would suffice to drive every wheel that turns from Eastport to San Diego. But the problem of gathering it has been a formidable one. All sorts of devices have been suggested, from burning-glasses heating boilers to strange electrical devices planned by wild-eyed wizards with companies to promote. Out of this chaos of hypothesis, however, has gradually been evolved something very like a substantial reality, so that at the present time it is within bounds to say that a reasonable proportion of the solar energy can be turned to the uses of man by means either already existing or fairly near at hand. The first man to take serious account of the matter from a modern engineering standpoint was John Ericsson, a genius who deserved better of the world than the world knew. Thirty years ago he devised and constructed several solar engines arranged to receive the sun's heat from huge reflectors and to utilize it for power either in a steam-engine or in that wonderfully ingenious hot-air machine of which he was the inventor. This was the first great step, and it is now in a fair way to be followed up. The fundamental thing in any plan for employing solar energy is so to concentrate it that it can be gathered up and put to work. This is best accomplished by huge reflectors in the form of concave mirrors, poised so as to follow the sun in its diurnal path, and to concentrate its rays on some device at the focus capable of transforming the energy into available power. The cut herewith shown gives an excellent idea of such an apparatus. It is from a photograph of a ten horse-power solar motor as set up for testing near Boston prior to its shipment to Arizona for pumping purposes. The great concave mirror is thirty-six feet in diameter, and contains 1000 square feet of mirror surface in its reflecting zone. It is balanced on a north-and-south axis tilted upwards to match the latitude of the place and the sun's declination. The sectors at the extremities of this axis allow the inclination to be changed every day or two to follow the changing declination of the sun. The whole mirror is turned about the axis by heavy clock-work, so as to follow the sun from hour to hour. This motion is not continuous, but takes place minute by minute, the gearing being locked in the intervals to resist better the effect of wind. In the centre of the mirror stands the boiler, a coil of blackened copper tubing, for a steam-engine is the active power. With good sunlight, the steam is brought to 200 pounds per square inch pressure in about an hour from starting, is superheated, and delivered to the engine, which yields one horse-power for each 100 square feet of mirror surface. The mirror itself is built up of flat thin glass plates silvered on the back, and held in position on the light steel frame-work by bolts and soft washers.

The whole affair can be put together with a screw-driver and a monkey-wrench. Where sunlight is fully available as it is in the Southwest, in Algiers, and in Egypt, and in many another region, such a machine can to-day furnish power for eight hours per day at a cost that will discount windmills, and will compare favorably in many localities with the cost of power obtained from fuel. Obviously, the weak point of this or any solar-heat engine is that it can be worked only a part of the day, and here is where electrical resources may be drawn upon to complete our scheme of dynamic salvation. Passing by the various devices of electrical jugglery which have from time to time been proposed, there are several well understood and reasonable methods of saving the day electrically. Perhaps the most obvious one is to utilize the solar engines to drive dynamos, the current from which could be taken up in storage batteries to be used when wanted. This process would involve the waste of perhaps a quarter of the power, but would allow the remainder to be used at any time, and, what is of greater importance, would permit many engines to furnish combined power. As single-mirror systems tend to become unwieldy in the larger sizes, joint storage has much to recommend it. Still another device which has been proposed is to replace the boiler by a huge thermo-battery generating current directly. If two bars of different metals, such as iron and German silver, are joined at one end of each, and this junction is kept hot while the other ends remain cool, an electric current will be generated in the system. A large number of such pairs can be joined in series, and used even for electric lighting and power. Thermo-batteries as developed thus far are considerably less efficient than a combination of engine and dynamo, but they are simple and very steady in their action.



New Solar Motor erected near Boston

A similar concentrator for light and heat is necessary in all plans, electric and otherwise, for getting power from the sun



"SECURING FOR SEA"—FIRST TRIP OF THE NEW "MAINE"

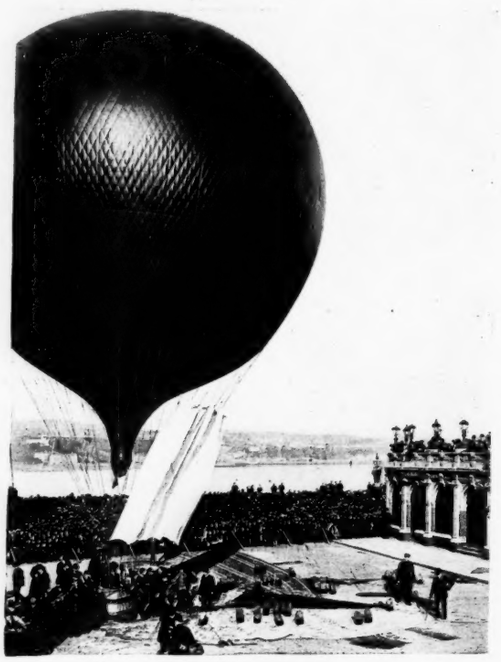
The new battle-ship which bears the name of the historic "Maine," sunk in Havana harbor, has just made her preliminary trip to sea. Mr. George Gibbs, in this drawing, has caught the moment when, with anchor aboard, the great ship started for the first time away from her moorings

BY BALLOON OVER THE IRISH SEA

THE Irish Sea being mainly bounded by neighboring coast lines, offers obvious and special facilities for aeronautical experiments. It chanced that certain important trials suggested themselves to the writer, which earned the approval of the British admiralty, and for these experiments this stretch of sea appeared particularly well suited.

It had long been pointed out that objects lying beneath water, the surface of which is in any measure disturbed, are better seen at a height above the water than they are at or near the water's edge; and it appeared a question of vital interest whether in modern navigation and modern warfare a balloon floating at a moderate height might not afford the most valuable point of observation for determining the position of sunken wrecks or reefs, or for detecting the yet more dreaded submarine. A balloon employed for such purpose should have ready means of communicating with vessels in its vicinity, and should be provided with an efficient signalling apparatus.

At the outset an incidental problem was presented: How might it be possible to effect an escape by sky from a seaport town under circumstances of blockade and siege when every advantage might be taken of existing capabilities? In time of actual warfare and siege it might be supposed that for safety the ascent should take place from the centre of a town, shielded from view by lofty buildings, and near the largest gas-mains by which the process of filling could be carried out with the greatest expedition when the right opportunity arrived. These conditions were fulfilled by starting from the public square in Douglas, Isle of Man.



The Start

As the balloon rose into the air, upper currents bore it away to the left of our anticipated direction. The Isle of Man lay mapped out below, sharply etched in by its rocky coast-line, streaked here and there with its romantic glens and water-courses, and dotted over by bald or cloud-capped mountain peaks. Our long trail rope, already free, struck on the summit of Snæfell — the loftiest peak in the island—and from this point our course again changed, veering somewhat to the eastward, and thus carrying us due above Ramsay, and so out to sea, having on our left the extreme point of Ayr, which we passed at a height of 4000 feet.

We were now well out over the sea. The man-of-war *Ronard*, which was accompanying us, looked like a mere speck far below. It seemed incredible that we could come into communication, but bringing my "collapsing drum" into action, I signalled "whistle," and in a short interval a double blast on the ship's hooter reached us faintly. The shoals in the sea gave us the opportunity of testing vision from aloft. And one all-important conclusion which we had been commissioned to seek was answered at once and definitely, viz., the penetration of vision beneath the surface of water was increased beyond all comparison from our present standpoint, and the value of such an observing station as ours was put beyond question.

At a mile and a half high an airy storm-tossed ocean of fleecy billows lay around, with deep, dark hollows and crests flung high as heaven, while through wide openings loomed all that could be seen of earth. The broad sea, bluer now, and seen as never before, figured and fretted curiously by conflict of wind and water, gave to us no indication of visible undulation, though streaks of cream showed here and there where waves were really breaking, while from the depth rose a strange soft musical murmur which filled the air. But all that was tangible seemed irrevocably remote.

The island disappeared finally from sight when about ten miles in our wake, and then, looking ahead, we scanned with eager curiosity a dark belt of lowering cloud which hung heavily across the skyline and barred our view. Somewhere beyond and behind that cloudbank must lie our goal, and this, if the balloon held its present course, should be Scotland, and probably some point in the Solway Firth, distant yet some thirty miles, across the hidden sea.

We subsequently learned that our friends on the *Ronard* still kept us in view, but only fitfully, as we glided from cloud to cloud. They also still continued to see the working of our signals, and, following in our course, succeeded in making such good speed that two hours later, when they anchored in Kirkcudbright Bay, they saw the last of the balloon safely inland and disappearing over the far Scotch mountains.

We landed in the Glen of Glenesslin, fourteen miles from Dumfries, and upwards of eighty miles from our starting-point, concluding a rare and historical sky voyage.

Above the Clouds, one Mile high

Over Douglas Bay, Isle of Man

Drawn by E. M. Ashe

AN UNUSUAL SOCIAL EVENT IN WASHINGTON

The recent marriage of Miss Hoy to Mr. Pierre S. Rogestvensky, second Secretary of the Russian Embassy, was the first wedding ceremony performed according to the rites of the Greek Church ever witnessed in Washington. One of the most picturesque incidents of the ceremony as shown in the drawing, was the crowning of the bride with a crown of jewels

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MISS MAXINE ELLIOTT

Mrs. Nat C. Goodwin, or, as she is more generally known to theatre-goers, Miss Maxine Elliott, has scored a success this year in "The Altar of Friendship." This picture shows her in a costume she will wear for the new but as yet unnamed play which has been written for her by Clyde Fitch, and in which she is arranging to appear this coming season